

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A safety monitoring device in a station platform, the safety monitoring device ~~being characterized by including~~ comprising:

image processing means for picking up a platform edge through a plurality of stereo cameras at the platform edge on ~~the~~ a railroad-track side of a station and generating image information based on a picked-up image in ~~the~~ a view field and distance information based on ~~the~~ a coordinate system of the platform per stereo camera,

means for recognizing an object based on distance information and image information transmitted from each of the stereo cameras, and means for confirming safety according to the state of the recognized object; wherein

the means for recognizing the object based on the distance information and the image information transmitted from each of the stereo cameras performs recognition using a higher-order local autocorrelation characteristic,

said higher-order local autocorrelation characteristic is used for determining whether ahead and behind time-series distance information existing at predetermined positions in a predetermined area pertains to a same person, and

the predetermined positions correspond to a plurality of blocks obtained by dividing the predetermined area, and a next search for the time-series distance information is performed by calculating the higher-order local autocorrelation characteristic for at least two blocks of said plurality of blocks.

Claim 2 (Currently Amended): The safety monitoring device in the station platform according to Claim 1, the safety monitoring device ~~being characterized by further providing~~

further comprising means for obtaining and maintaining ~~the~~ a log of a flow line of a person in a space such as the platform.

Claim 3 (Canceled).

Claim 4 (Currently Amended): The safety monitoring device in the station platform according to Claim 1, ~~the safety monitoring device being characterized in that wherein~~ the means for recognizing the object based on said distance information and image information discerns between a person and other ~~things from~~ objects based on barycenter information on a plurality of masks at various heights.

Claim 5 (Currently Amended): The safety monitoring device in the station platform according to Claim 1, ~~the safety monitoring device being characterized in that wherein~~ the means for confirming the safety obtains said distance information and image information of the platform edge, detects image information of railroad-track area information, recognizes ~~the~~ a fall of a person or ~~the~~ a protrusion of a person or the like toward outside the platform according to the distance information of the image information, and issues a warning.

Claims 6-7 (Canceled).

Claim 8 (New): A safety monitoring apparatus in a station platform comprising:  
an image processor configured to detect a platform edge through a plurality of stereo cameras at the platform edge on a railroad-track side of a station and generate image information based on a picked-up image in a view field and distance information based on a coordinate system of the platform from each stereo camera;

a recognition processor configured to recognize an object based on the image information and the distance information from each stereo camera and confirm safety based on the state of the recognized object, wherein

the recognition processor is configured to recognize the object based on the image information and the distance information from each stereo camera by performing recognition using a higher-order local autocorrelation characteristic,

the higher-order local autocorrelation characteristic is used for determining ahead and behind time-series distance information existing at predetermined positions in a predetermined area as pertaining to a same person, and

the predetermined positions correspond to a plurality of blocks obtained by dividing the predetermined area, and a next search for the time-series distance information is performed by calculating the higher-order local autocorrelation characteristic for at least two blocks of the plurality of blocks.